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AN UNUSUAL WINTER BALD EAGLE NEST IN SOUTHERN CALIFORNIA

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In recent decades Bald Eagle (*Haliaeetus leucocephalus*) populations have seriously declined throughout the southern portion of their range, and the species is listed as endangered by the U.S. Department of the Interior and many states (Bickett 1982). In California Bald Eagles have historically nested from southern California (primarily along the coast and the Channel Islands) north throughout much of central and northern California (Grinnell and Miller 1944). Small numbers of eagles still breed in northern California, primarily around large bodies of water in northeastern counties (Lehman 1979; McCaskie et al. 1979). Although Bald Eagles no longer breed in southern California, the area does support a small winter population (Garrett and Dunn 1981). During the 1986 mid-winter Bald Eagle survey, 598 Bald Eagles were reported in California (Jurek 1986), 55 of which were in southern California (south of Pt. Conception). During a 1986 statewide nesting survey, 68 pairs of adult Bald Eagles occupied breeding territories, and 44 successful breeding pairs produced 68 fledglings (Calif. Dept. of Fish and Game 1986). All nests were in the northern portion of the state at least 600 km north of the San Jacinto Valley. Here, we report on a recently constructed Bald Eagle winter nest in the San Jacinto Valley, southern California, and present observations of nest building and roosting behavior during a two yr period.

The San Jacinto Valley is located in west central Riverside County at an elevation of approximately 500 m. Land use is predominantly agriculture (grain and alfalfa (*Medicago sativa*) production; dairy farming) interspersed with fallow fields, waterfowl hunting and remnant patches of native riparian woodlands. The valley is surrounded on three sides by rugged hills (up to 808 m) of inland sage scrub (*Artemisia californica*). Climate during winter months is mild with low precipitation ($\bar{x}$ = 36.9 cm/yr) and temp seldom below freezing (Bailey 1966).

On 26 January 1985 at 0725 H we observed an adult Bald Eagle perched on a live Eucalyptus (*Eucalyptus globulus*) tree. The eagle flew to an adjacent agriculture field, picked up a stick in flight, returned to the same Eucalyptus tree and landed on the rim of a large stick nest where another adult eagle was perched. The second eagle took the stick in its bill and positioned it into the nest. Similar nest building behavior lasted for over an hour even while the ranch owner, whose residence is <60 m away, moved about under the nest tree. When both birds perched together on the same branch, we noticed a slight difference in their size. We tentatively concluded that we were observing a mated pair. A pair of Bald Eagles has been seen at the same tree each year for the previous four yr with one of the eagles usually arriving in late November and the other within a few days (F. Ybarrola, pers. comm.). Both leave the valley mid- to late-March, and the eagles first built a nest in winter 1981–82. We observed nest building activity on seven of twelve d in January and February 1985.

The Eucalyptus tree supporting the eagle nest is 35 m in height (measured by clinometer) with a breast height diameter (DBH) of 1.1 m—the tallest tree in a row of eleven trees and one of the tallest trees in the San Jacinto Valley. The nest is about 1.5 m in dia, 1.8 m in height, and 28.6 m above the ground near the main trunk. The closest major water impoundment, Lake Perris, is 3 km from the nest site. The nest site measurements are well within the range of those reported for active or formerly active sites in northern California (Lehman 1979).

Differences between the San Jacinto Valley nest and those in northern California include tree species (all nests studied in northern California were in conifers) and distance from open water (none of the 93 nests in northern California were more than 1.6 km from open water).

We occasionally observed the eagles foraging from the nest tree. On 5 February the eagles fed on a Black-tailed Hare (*Lepus californicus*) carcass in a fallow field approximately 1 km from the nest. On 13 February one of the eagles left the tree to catch a Beechey Ground Squirrel (*Spermophilus beecheyi*) flushed by a tractor, then returned to the nest where both eagles fed on the squirrel. The eagles were also seen capturing Botta Pocket Gophers (*Thomomys bottae*) several times. The eagles left the roost three to five hr after sunrise ($\bar{x}$ = 4.5 hr, N = 7). We regularly followed the larger of the two eagles to a foraging site at a complex of waterfowl hunt clubs approximately 6 km from the nest; we were unsuccessful at following the other eagle.

In the winter of 1985–86 only one eagle was consistently observed at the nest throughout the winter, although both had participated in nest building the previous winter. On 11 December 1985, two d after arrival of the second eagle, both birds were observed carrying and rearranging sticks at the nest. Nest building behavior was again observed on 9 January 1986; subsequently, only one eagle regularly remained at the nest. A second eagle was observed only three times during the remainder of the winter. On one instance a Golden Eagle (*Aquila chrysaetos*) was seen near the nest tree. Immediately, the second Bald Eagle, which had not been seen for over a week, appeared and vigorously chased off the Golden Eagle.

Jurek (1986) reported that new nesting in Sierra County (in 1985) and El Dorado County (in 1986) may provide some evidence of a southward breeding range expansion in the Sierra Nevadas. The only previously reported Bald Eagle nest in Riverside County was at Lake Elsinore (Heller 1901). Snow (1973) believes the construction of dams and reservoirs in recent decades has created new Bald Eagle habitat. Although we did not see the eagles copulate or display other reproductive behaviors, nest building may indicate a potential for the resumption of Bald Eagle breeding in southern California.

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